IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Takumi OKAUE et al.

Serial No. : 09/467,221

For : EXTERNAL STORAGE APPARATUS AND CONTROL
APPARATUS THEREOF, AND DATA TRANSMISSION RECEPTION
APPARATUS

Filed : December 20, 1999

Examiner : Larry D. Taylor

Art Unit : 2876

745 Fifth Avenue
New York, NY 10151

AMENDMENT

Assistant Commissioner
    for Patents
Washington, D.C. 20231

Sir:

This is in response to the Office Action issued in the above-identified application on

October 3, 2002. In light of the remarks to follow, reconsideration and allowance of this

application are respectfully solicited.

Claims 19-24 are present in this application. In the Office Action under reply, all of these claims were rejected as being obvious in view of Robinson (U.S. Patent 5,428,579) in combination with Seibert (U.S. Patent 5,650,967); with the patent to Jigour (U.S. Patent 5,815,436) being added to this combination to reject claims 21 and 24. These rejections are quite similar to the rejections made in the Final Office Action of January 31, 2001, except that in the January 31, 2001 rejection, the claims were rejected as being obvious in view of Robinson in combination with *Komatsu*, whereas now, the claims are rejected as being obvious in view of Robinson in combination with *Seibert*.

It is respectfully submitted that Seibert does not cure the deficiencies of Robinson, noted in Applicants' Appeal Brief filed January 2, 2002.[1] Consequently, claims 19-24 are patentably distinct over the cumulative teachings of Robinson and Seibert (even when these teachings are supplemented by Jigour); and the rejection set out in the Office Action under reply should be withdrawn.

Claim 19 is drawn to a memory card usable with an external apparatus; and claim 22 is drawn to a system comprised of the memory card of claim 19 and the external apparatus. Therefore, for simplification and to best appreciate the issues raised by the rejection, the present discussion is directed to the memory card of claim 19. The claimed memory card comprises a flash memory, a switch settable to inhibit writing data into the flash memory, an interface for communicating with the external apparatus, and

> control means for controlling said memory card in accordance with an instruction transmitted from said external apparatus, said control means sending to said external apparatus via said interface the state of said switch *in response to a read status instruction transmitted thereto via said interface from said external apparatus* and said control means receiving from said external apparatus data to be written to said flash

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[1] It should be noted that the Appeal Brief persuaded the Examiner to withdraw his rejection based on Robinson and Komatsu.

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memory and a write instruction signal *only if the state of said switch that is sent to said external apparatus is not said state which inhibits writing.*

The emphasis noted above particularly points out those claim recitations that are not found in Robinson or in Seibert (even if these references are supplemented by Jigour).

Applicants' understanding of Robinson is discussed in detail in their January 2, 2002 Appeal Brief and need not be repeated here. Rather, such discussion is incorporated here as if repeated. Suffice it to say, data is supplied from a host computer (e.g. external apparatus) to Robinson's memory card to be written into flash memory irrespective of the state of Robinson's write protect switch. If the write protect switch is set to prevent data from being written into the flash memory, the data that is supplied from the host computer will not be written. Nevertheless, the host computer will transmit data to the memory card, whether or not the write protect switch is set; and whether or not that supplied data is written into the memory. Therefore, Robinson does not provide a teaching of:

"said control means sending to said external apparatus ... the state of said switch in response to a read status instruction transmitted thereto ... from said external apparatus and said control means receiving from said external apparatus data to be written to said flash memory and a write instruction signal only if the state of said switch that is sent to said external apparatus is not said state which inhibits writing."

This deficiency in Robinson is not cured by Seibert. While the Examiner is correct in noting that, prior to initiating a write sequence, Seibert determines if the memory block in which data is to be written is a protected block, and if it is, the write routine is ended (col. 3, lines 49-62); this operation is independent of, is not responsive to, and has nothing to do with "a read status instruction transmitted thereto via said interface from said external apparatus," as recited in claim 19. Nor does Seibert suggest that his logic controller 64 "send[s] to said external

apparatus via said interface *the state of said switch* in response to a read status instruction transmitted" from external apparatus.

Therefore, the logical teachings of the combination of Robinson and Seibert would not enable one of ordinary skill in the art to make and use the feature of claim 19 in which "the state of said switch" is sent from the control means of the memory card "to said external apparatus ... in response to a read status instruction transmitted [to the control means] ... from said external apparatus." At best, the cumulative teachings of Robinson and Seibert do not initialize a write operation if the write enable signal WE of Seibert is not true (col. 4, lines 19-21 of Seibert); but there still is no teaching of sending the state of a write protect switch to the external apparatus in response to a read status instruction sent from that external apparatus. That is, the sequence implicit in claim 19 of first receiving a status instruction from the external apparatus and then sending to that apparatus the switch state and only then sending data and a write instruction signal to the memory card is not found in the references relied upon by the Examiner. Furthermore, although Seibert describes the determination by controller 64 of whether the memory block into which data is to be written is a protected block, there is no description in this patent of any element or feature that is analogous to a write protect switch. Seibert does not suggest that a protected memory block is established by a write protect switch, nor has the Examiner pointed to any portion of Seibert from which this can be implied.

For the foregoing reasons, claim 19 is unobvious in view of Robinson and Seibert, and the rejection thereof should be withdrawn.

Claim 22 differs from the combination of Robinson and Seibert for the same reasons discussed above and, consequently, the rejection of this claim likewise should be withdrawn. It should be particularly noted that claim 22 recites that the external apparatus that communicates

with the memory card has a controller that "transmit[s] a read status instruction to said memory

card ... to determine whether a data writing operation ... is inhibited." Claim 22 also recites that

the controller in the memory card "send[s] to said external apparatus ... the state of said switch

in response to [that] read status instruction" that is transmitted from the external apparatus. That

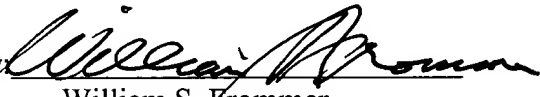Robinson and Seibert, in combination, fail to describe this feature has been pointed out above.

Therefore, claims 19-24 are unobvious and are patentably distinct over the cumulative

teachings of Robinson and Seibert, even when those teachings are supplemented by Jigour.[2] The

withdrawal of the rejection of these claims and the issuance of the Notice of Allowance of the

present application are respectfully solicited.

Statements appearing above in respect to the disclosures in the cited references

represent the present opinions of the undersigned attorney and, in the event the Examiner

disagrees with any of such opinions, it is respectfully requested that the Examiner specifically

indicate those portions of the references providing the basis for a contrary view.

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[2] Claims 20 and 21 depend from claim 19 and, therefore, include all of the limitations recited by the independent
claim. Hence, claims 20 and 21 are patentably distinct over the prior art for the same reasons that distinguish claim
19. Claims 23 and 24 depend from claim 22 and are patentably distinct for the same reasons that distinguish claim
22. Although Jigour was added to the combination of Robinson and Seibert to reject claims 21 and 24, Jigour does
not suggest that the state of a write protect switch is transmitted to external apparatus after that external apparatus
sends a read status instruction to a memory card.

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Respectfully submitted,
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